

Supplementary Figures

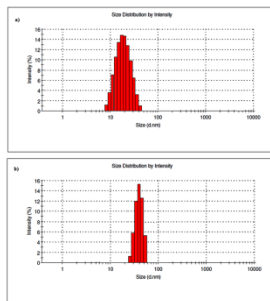


Fig.S1. The hydrodynamic diameters of (a) PEGylated PdNPs and (b) DOX conjugated PEGylated PdNPs. PEGylated PdNPs have an average size of 17 ± 2 nm (PDI = 0.127 ± 0.09) and DOX conjugated PEGylated PdNPs have an average size of 40 ± 5 nm (PDI = 0.214 ± 0.01).

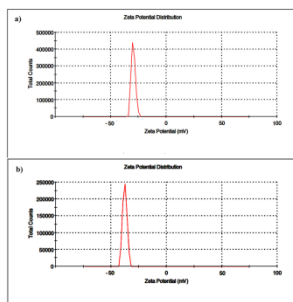


Fig.S2. Surface zeta potential value of (a) PEGylated PdNPs and (b) DOX conjugated PEGylated PdNPs. The zeta potential of the nanoparticles is negative. PEGylated PdNPs have zeta potential of -32.8 ± 0.27 mV and DOX conjugated PEGylated PdNPs have zeta potential of -36.7 ± 0.65 mV

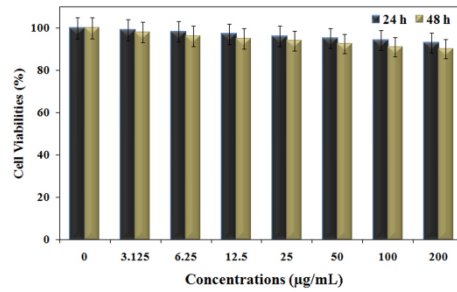


Fig.S3. The cytotoxicity of PEGylated PdNPs against HeLa cells as determined by MTT assay for 24 h and 48 h. Data represent mean \pm SD (n =3)

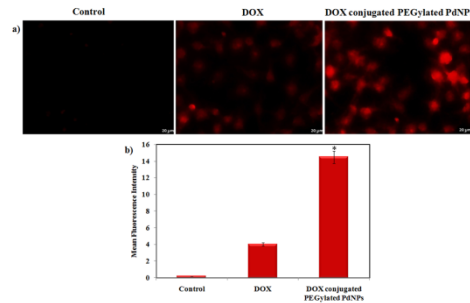


Fig.S4. Cellular uptake and intracellular localization of free DOX and DOX conjugated PEGylated PdNPs in HeLa cells observed by fluorescence microscopy. (a) Fluorescence micrographs of HeLa cells (5.0×10^4 cells) without any treatment, after incubation with DOX and after incubation with DOX conjugated PEGylated PdNPs for 48 h. (b) The geometric mean fluorescence intensity of HeLa cells treated with free DOX and DOX conjugated PEGylated PdNPs at an equivalent dose of $2\mu\text{g/ml}$ for 48h. $*p < 0.05$ was considered statistically significant.

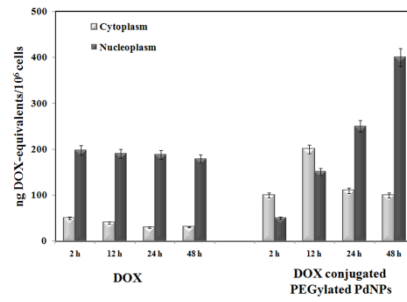


Fig.S5. The cellular and nuclear uptakes of free DOX and DOX conjugated PEGylated PdNPs in HeLa cells after 2 h, 12 h, 24 h and 48 h of incubation. The concentration of total DOX (free DOX and equivalent DOX in DOX conjugated PEGylated PdNPs) was 2 μ g/ml. Data represent mean \pm SD (n =3)

Table S1. Characteristics of PEGylated PdNPs and DOX conjugated PEGylated PdNPs.

Samples	Particle size (nm)	Polydispersity index	Zeta potential (mV)	DLC (%)
PEGylated PdNPs	17 ± 2nm	0.127 ± 0.09	-32.8 ± 0.27	-
DOX conjugated PEGylated PdNPs	40 ± 5nm	0.214 ± 0.01	-36.7 ± 0.65	8.79

Table S2. Percent haemolysis for positive control, negative control, PEGylated PdNPs and DOX conjugated PEGylated PdNPs at different concentrations for 3 h.

PEGylated PdNPS (µg/ml)									
	Positive	Negative	3.125	6.25	12.5	25	50	100	200
Absorbance value	3.14±0.062	0.02±0.003	0.22±0.012	0.31±0.31	0.42±0.31	0.66±0.035	0.89±0.033	0.123±0.046	1.44±0.027
Hemolysis %	(100% Hemolysis)	(0% Hemolysis)							
DOX Concentration (µg/ml)									
		0.125	0.25	0.5	1.0	2.0	4.0	8.0	
		0.21±0.013	0.37±0.021	0.52±0.11	0.79±0.024	0.99±0.020	1.13±0.032	1.57±0.054	